
Chapter 29

Arguments for Population Movement of Anatomically Modern Humans from Central Asia to Europe

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Modernization

In the human species, biological evolution is presented as a retroactive process between culture and anatomy: the greater the functional investment in gestures/movements, the less the mechanical importance of the mandible and the muscles encircling the brain. This effect was set in motion from the beginning of human palaeontological origins and occurred in all time periods and across space, passing from hominization to modernization. There is thus no reason to create a 'modern' stage to a process active everywhere (and continuing today) once behaviour enters into the adaptive system of populations. Morphological changes adopted were more rapidly diffused as they concerned immense spaces, such as Asia or Africa. Rates of change were shorter in marginal areas, such as Europe or southeastern Asia, where mutations arrived in waves from an external origin, giving the illusion of clearly distinct stages.

Yet the history of science is such that the first hominins were discovered in western Europe; the interpretation of these different forms, too rigidly defined, was applied to the rest of the world to local discoveries made during colonization. The search for Cro-Magnon continued throughout the world and, obviously, was discovered, for example in Africa, but also in China where dogmatism still refuses to recognize its regional lineage. Several independent centres of ancient hominization were spontaneously set in motion except, ironically, in Europe where, precisely, such concepts first originated. Aligned on the middle latitudes, Europe was more probably directly continentally connected with Asia than with Africa: an eastern origin of European modernity seems both more logical and is better supported by the archaeological data; absolutely nothing in Africa corresponds to what occurred in Europe beginning with the arrival of 'modern' humans or Cro-Magnons. Everything, in

contrast, suggests significant cultural contributions comparable to the data from central Asia.

The Levant

A very early form of the Upper Palaeolithic — the Ahmarian — appeared in the Negev around 40,000 BP, and extended along the Levantine coast to the site of Üçağizli (dated to 38,000 BP), on the southeast Turkish border. This blade-rich Levallois industry is identical to that found in northeast Africa (Nazlet Khater) and in the Nile Valley. Recently, the site of Taramsa in Egypt has shown that this is a 'modern' phenomenon, both culturally and biologically (Vermeersch *et al.* 1998). This phenomenon brings to mind both that the laminar technique can be found in Mousterian contexts (Rocourt, Seclin, Tabun) and that the blade-rich Levallois can also be found during the Upper Palaeolithic (Kara-Bom, the Bohunician, the Châtelperronian). The association of the Ahmarian with modern humans is even more natural given that African modern humans appear sporadically associated with the Mousterian (Qafzeh, Zuttiyeh). During the Palaeolithic, the African continent periodically affected the Levantine cultures: the Acheulean is both abundant and early as far as the Caucasus (Liubine 2002). However, the African Upper Palaeolithic and African modern humans do not extend beyond the Turkish border and thus do not contribute to Anatolia and Europe. In contrast, it is the Aurignacian which is superimposed — identical to that in Europe but clearly more recent (around 32,000 BP: El Kown, Hayonim, Ksar Akil). The culture and the population that interest us in Europe cannot be of Levantine origin, because they are too sporadic and too recent there, while the Ahmarian has no equivalent in Anatolia. The Levant clearly remains under African influence and does not itself affect what occurred in Europe: not even the Acheulean crossed the Taurus Mountains and only rare connections were made in the

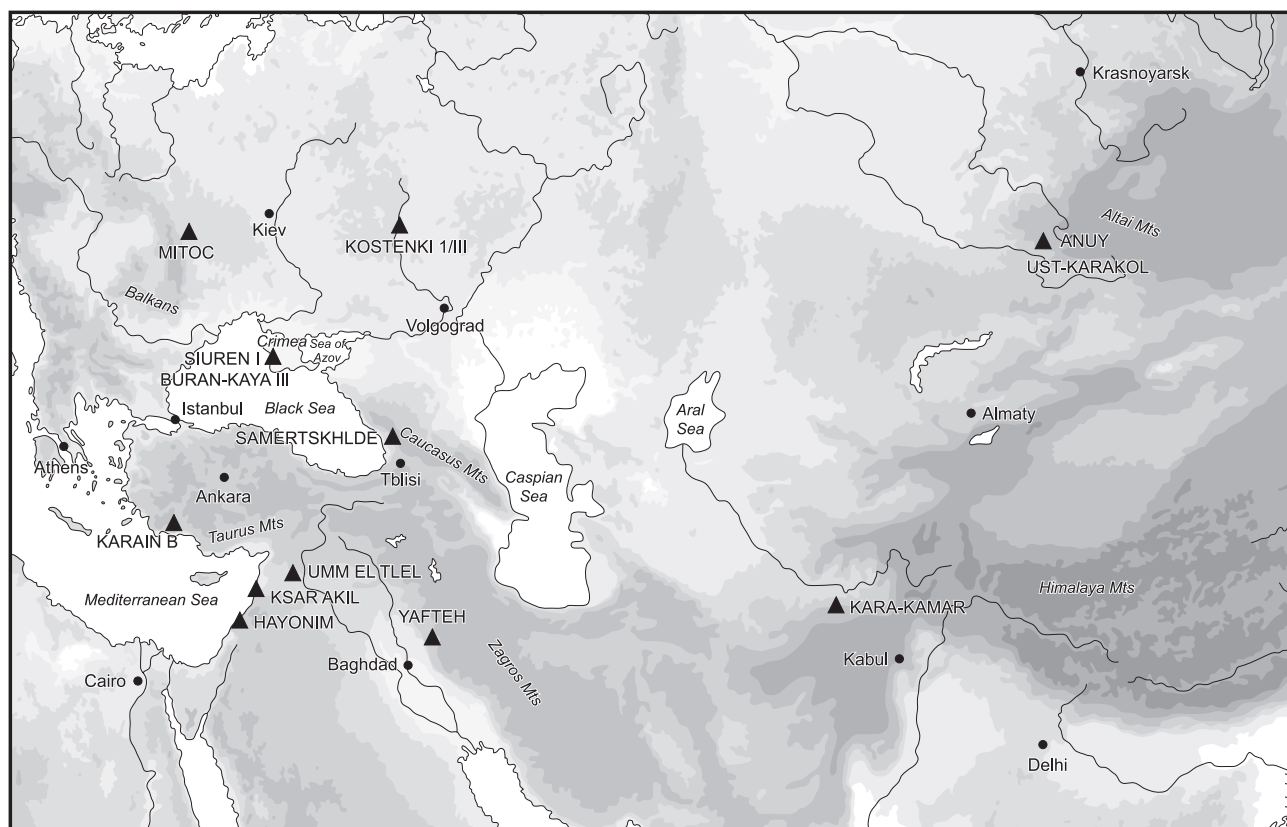
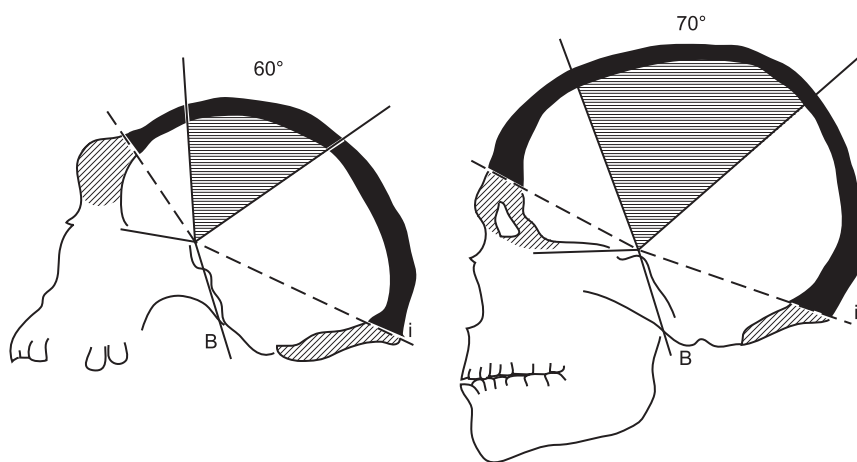


Figure 29.1. Map showing the sites discussed in this chapter. The Aurignacian expansion follows a northeast–southwest axis, along the length of low mountain chains and plateaux: Zagros, Caucasus, Taurus, the Crimea, and the Balkans. ‘Lateral’ expansions extend north to the Altai region and south to the Levant. However, the greatest expansion is westward, toward the European peninsula, along the same latitudes. The two coasts of the Black Sea show evidence for this migration (The Crimea, Anatolia), even more so when one considers that the sea level was much lower and exposed land (e.g. the Sea of Azov) would have facilitated terrestrial passages.

Figure 29.2. Anatomical modernity.

André Leroi-Gourhan demonstrated the universality of the trend to ‘modernization’ in the 1960s (Leroi-Gourhan 1964). This mechanism is nothing more than a continuation of the process of ‘humanization’, begun with the earliest hominoids. Once function transferred from mandible to hands, mechanical atrophy led to retreat of the facial structure. Bone mass was progressively transferred to the cranium. Globally, this has a retroactive effect, associated with the increasing role of behaviour,

including the use of symbolism, which required and benefitted from increased brain mass for stocking and treating external information. This phenomenon took place through time and across space, at varying rates of change. In large areas with substantial genetic exchange (Africa and Asia), the phenomenon of modernization has a uniform aspect. By contrast, in marginal areas (southeast Asia and Europe), effects of abrupt change give the illusion of distinct phases of evolution, but appear to be the result of migration.



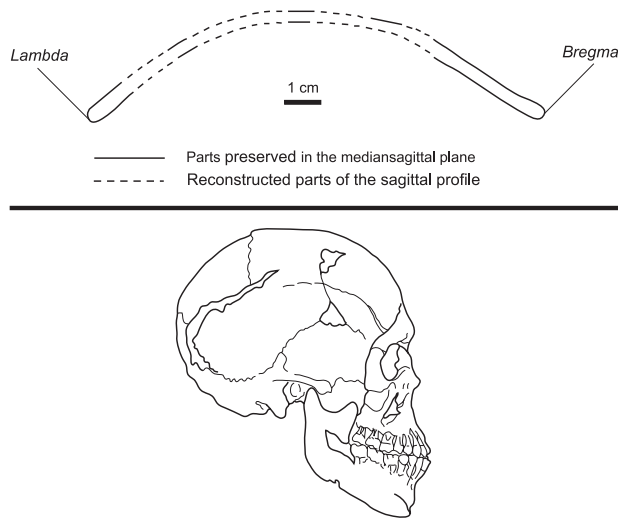


Figure 29.3. Modernization. Bottom: ‘Modernization’ seems to be present early in the Levant because this region remained in constant terrestrial contact with Africa. The Acheulean and Ahmarian industries, typically Africa, are associated with the northeastern border of Africa. Yet there were also migratory fluctuations coming from Europe (Neanderthals) and central Asia (Aurignacian), superimposed in such a manner that they are unexplainable if considered only at a local scale. Qafzeh and Zuttiyeh are typical examples of this source of confusion: they are not only ‘modern’, but, especially, African (comparable to Taramsa, Egypt). They thus have no relationship with the European sequence, for which ‘modernity’ is only observed 50,000 years later! Top: By contrast, Asian populations also underwent the process of ‘modernization’, probably in different centres of origin, like China which was incontestably autonomous since

at least *Homo erectus*. But there were also other centres, such as central Asia, where this process was continuous. The discovery of the Obi-Rahmat parietal (Uzbekistan) seems to support this hypothesis: dated to around 60,000 BP, it has a modern profile, by the flattening and thinness of the cranial vault (Glantz et al. 2004). The associated industry is not, however, Aurignacian, but has a laminar tendency developing from the local Levallois (see Fig. 29.6), as elsewhere in Eurasia (Ahmarian, Bohunician, Châtelperronian). There also, it is a matter of local trends and not historical contexts.

opposite direction (Neanderthals, Aurignacian), much older in Eurasia than in the Levant. We must undo the historico-political inertia at the origin of certain beliefs resulting from the colonial periods, from the Crusades to the British mandates. The fact that the Turkish Empire remains apart does not mean that this has the same meaning in Palaeolithic research.

The Black Sea

During the cold phase that concerns us, the Black Sea was a lake (the Bosphorus being exposed land), with a level much lower than the sea today. The Crimea was connected to the continent by the Azov Sea; a large land mass was exposed along the entire northern part of the current Black Sea and the Crimea Mountains constituted the western extremity of the Caucasus. A gigantic territory under the Black Sea remains to be explored, with the probability of surprises on a par with Cosquer Cave in Provence, France. The exposed land enlarged the immense plain south of the Urals. At the same latitudes, land communications with Central Asia were completely open (as historical invasions have clearly shown). Yet Aurignacian sites are numerous and rich in the Crimea: Siuren I and Buran Kaya III, for example. They are also present in Moldavia (Mitoc-Malu Galben), in Valachia (Romania) and Bulgaria (Bacho-Kiro, Temnata). In all of these cases, the Aurignacian interrupts the local Mousterian sequence and appears to be of external origin

(certainly not from Africa, up to Simferopol!), while dates obtained are much earlier than from the Levant. In Anatolia, the cave site of Karain B has yielded an early Aurignacian with local Mousterian affinities (the ‘Zagros Mousterian’).

Uzbekistan

Situated in the heart of the region between the Altai and Zagros Mountains, Uzbekistan contains disparate, open-air Aurignacian sites (Suleymanov 1972). However, a long sequence is now known from the north of the country, at the Obi-Rahmat rock shelter, excavated by teams from Novosibirsk and Tashkent. The *in situ* deposits of this sequence have provided C14 and U-Th dates from 48,000 to 90,000 BP. A long evolution throughout the entire sequence demonstrates the development of a blade-rich Levallois industry. This technological trend does not belong to Aurignacian concepts, but is associated with the many Early Upper Palaeolithic industries based on the blade-rich Levallois: thus there are parallel evolutions, as is the case in the Near East. Also of interest at Obi-Rahmat is the discovery of hominin remains, in a stratum dated to around 60,000 BP. While the teeth discovered suggest Neanderthals (known from nearby Teshik-Tash), fragments of the cranium have clearly modern tendencies. Thus one of the zones of anatomical ‘modernization’ could have existed in central Asia, as was the case in China and in different parts of Africa.

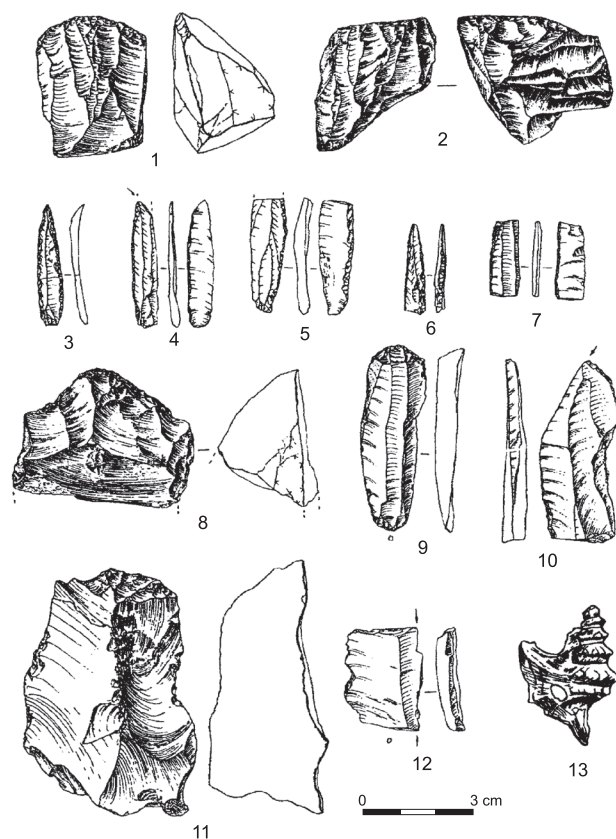


Figure 29.4. The Crimea. At Siuren I, below an immense block of roof-fall, an Early Aurignacian industry has been recovered, previously identified by excavations in the 1920s. The tool kit is dominated by carinated endscrapers and retouched bladelets, of Font-Yves type (points) or Dufour (with fine lateral retouch). A fossil shell pendant (13) suggests activities related to body decoration. (After Demidenko & Otte in press.)

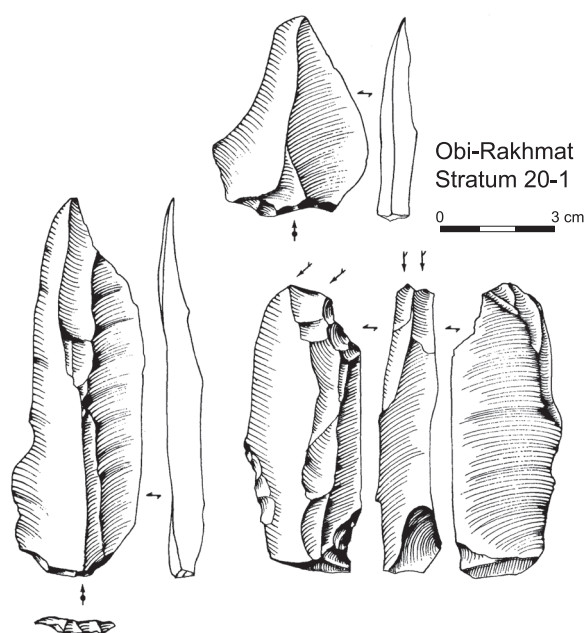


Figure 29.6. Uzbekistan. The Aurignacian is ephemerally present here at dispersed open-air sites (but not at Samarkand, as I formerly believed). By contrast, a long sequence is currently being excavated at Obi-Rakhmat in northern Uzbekistan, by a team from Tashkent and Novosibirsk (Derevianko 2004). The upper section is dated by radiocarbon to around 40,000 BP, while the base, dated by TL, is around 90,000 BP. The transition to the Upper Palaeolithic is thus comprised in the sequence, although to date there is no evidence for the presence of the Aurignacian: throughout the sequence, reduction is blade Levallois, leading toward an Upper Palaeolithic industry comparable to that at Kara-Bom in Siberia (Goebel et al. 1993).

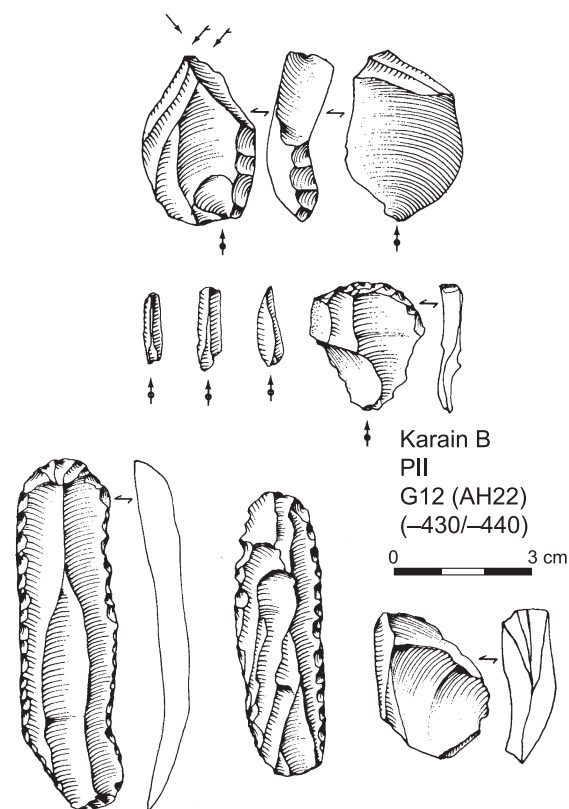


Figure 29.5. Anatolia. The long sequence of Karain (cavity E) extends from the Lower Palaeolithic to Final Mousterian of 'Zagros type' with long laminar flakes retouched as points (Otte et al. 1995). Adjacent Karain B contains the same sequence for the Final Mousterian, followed by 'classic' Aurignacian dated to 31,000 BP, with bladelet cores, carinated burins and endscrapers, retouched blades and bladelets (Yalçinkaya & Otte 2000). In the light of the Iraqi-Iranian sequence (Shanidar, Warvasi: Otte & Kozłowski 2004), it is possible to propose the truncated sequence of the Zagros, where the Final Mousterian is followed locally by the 'Zagros Aurignacian' (the 'Baradostian' of R. Solecki and D. Garrod: Olszewski & Dibble 1994).

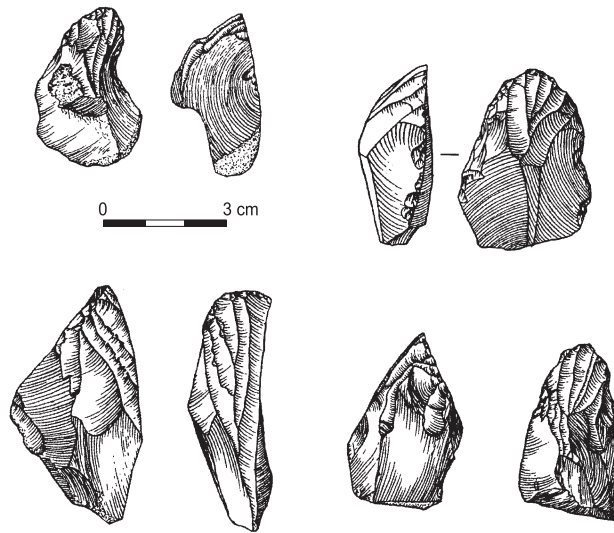


Figure 29.7. Afghanistan. In the centre of the country, the cave site of Kara Kamar, excavated by Coon (1957), yielded a superb Aurignacian industry (new study in progress by Otte and Kozłowski; see also Davis 2004). This site indicates the easternmost expansion, known to date, of the Aurignacian and 'modernity' that would become European. Identical assemblages in Iran and Iraq could have equally spread to the extreme southeast (they are clearly present in the Shiraz region): new excavations should verify this presence in Pakistan and in the Punjab region. Considered from the position of Europe, this massive migration of modern humans is, in fact, the only one during the Palaeolithic to correspond to a demographic movement of external origin, and thus the basis for the future 'Indo-Europeans'.

Afghanistan

Despite difficulties of access, the long sequence of Kara Kamar (excavations of Coon 1957) reveal the existence of a classic Aurignacian which is still the furthest eastern occurrence known (Fig. 29.7). With Kozłowski, we were able to study and confirm this attribution by, among other characteristics, the abundance of carinated endscrapers and bladelet cores. Previously obtained dates situate the occupations between 35,000 and 40,000 BP (Coon 1957).

The Zagros

The most constant presence of the Aurignacian is found in Iraq (Shanidar) and, particularly, in Iran, where several sites were identified by the work of D. Garrod, although not always accepted in the specialized literature, for mysterious reasons... New surveys and fieldwork are now in progress, organized by the

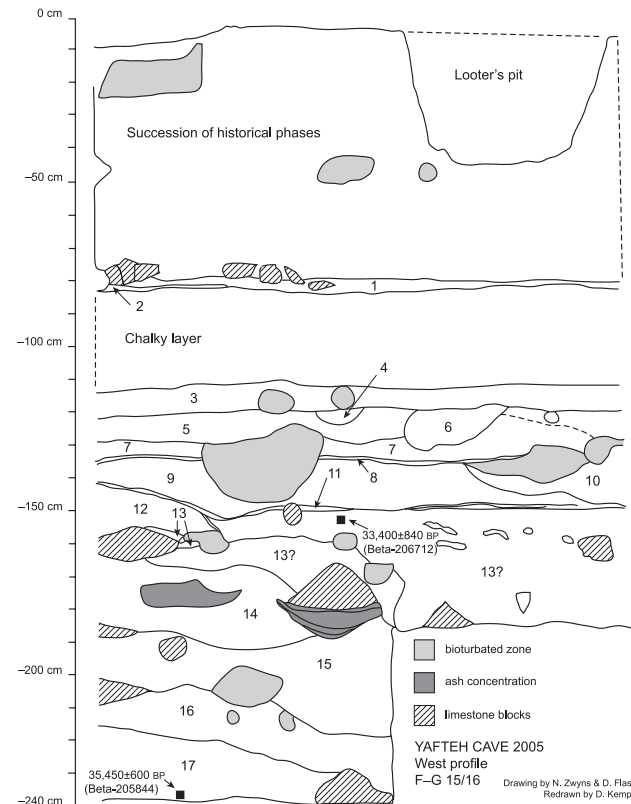


Figure 29.8. Iran. Numerous Aurignacian sites ('Baradostian') are known in various regions of the Zagros and the central desert (Otte & Biglari 2004). New excavations are in progress, undertaken in a collaborative project between the Iranian Institute for the Preservation of Cultural Heritage and the University of Liège. An initial test pit at Yafteh Cave in 2005 has already demonstrated the high density of Aurignacian occupation in Luristan (Otte et al. 2006). This test pit, as yet limited in area, has, however, yielded a radiocarbon date of 35,500 BP.

University of Liège and the Iranian Institute of Archaeological Heritage (F. Biglari). In addition, with J.K. Kozłowski, we have reviewed the old collections (those of C. Coon, R. and R. Solecki, and F. Hole) in order to better understand the region. Numerous sites were located and we have begun a test pit at Yafteh Cave where the Aurignacian industry has been dated to 35,500 BP (Fig. 29.8). The assemblage contains all of the characteristic elements, including pendants, bone industry, Dufour bladelets, Arjeneh points (that is, Font-Yves or Krems points) and red colourants. All of these elements are in the process of being analysed with our Iranian colleagues (Otte et al. 2006).

In the meantime, study of the long sequence of Warwasi (Iranian Kurdistan) has demonstrated the continuity between the local Mousterian and the Au-

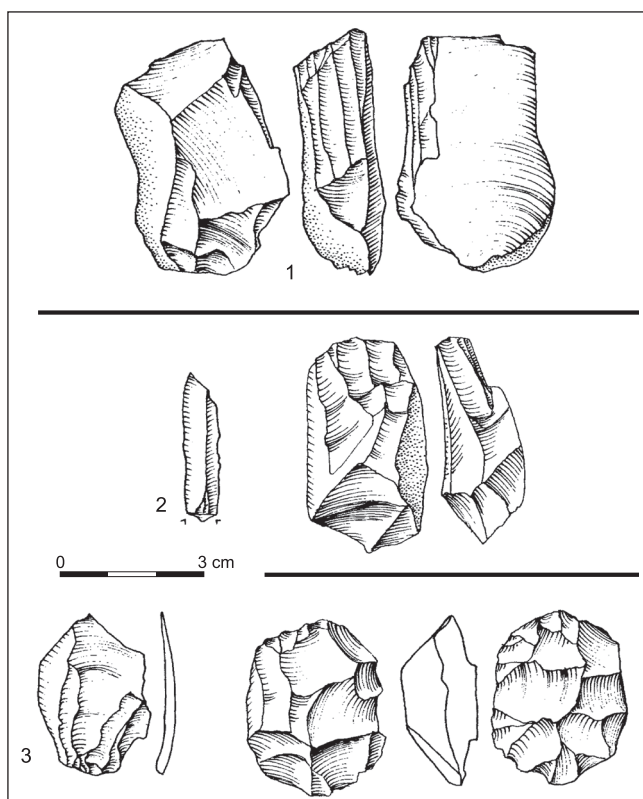


Figure 29.9. (on left) Yafteh (2005). Different technologies were exploited simultaneously during this Aurignacian, although we cannot as yet observe a developmental tendency. Bladelet reduction from flakes (1) accompanies blade-core reduction (2) and rare centripetal reduction (3). (Excavations: Teheran and Liège 2005; after Otte et al. 2006.)

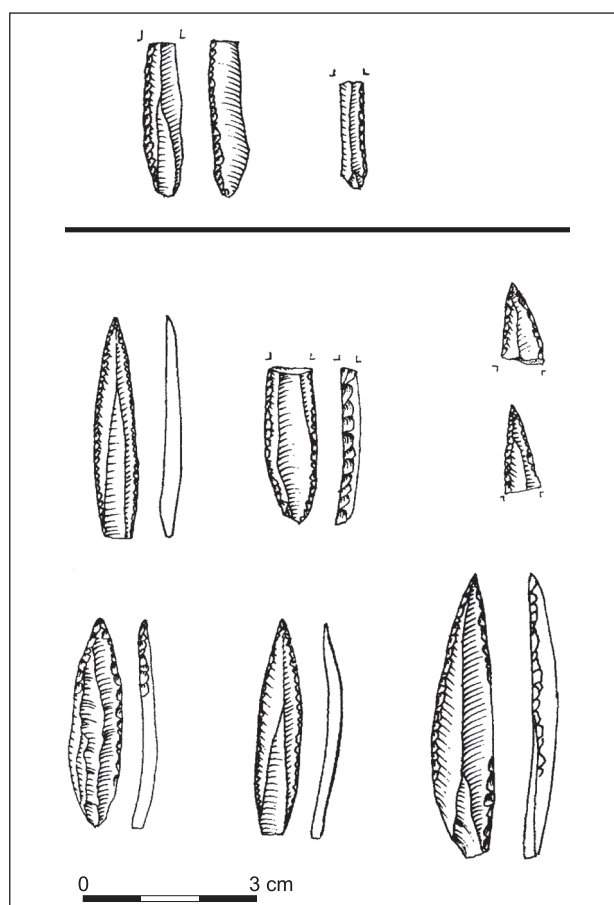


Figure 29.10. (above) Yafteh (2005). Pendants are common in this Aurignacian: deer canines, marine shells, hematite; the bone industry includes spear points. The most frequent tools are retouched bladelets, either of Dufour type (top) or of Krems-Font-Yves type, locally called 'Arjeneh points' (bottom). This component, characteristic of the early phase, seems to have resulted from composite armatures for which the raw material was wood and bone. (After Otte et al. 2006).

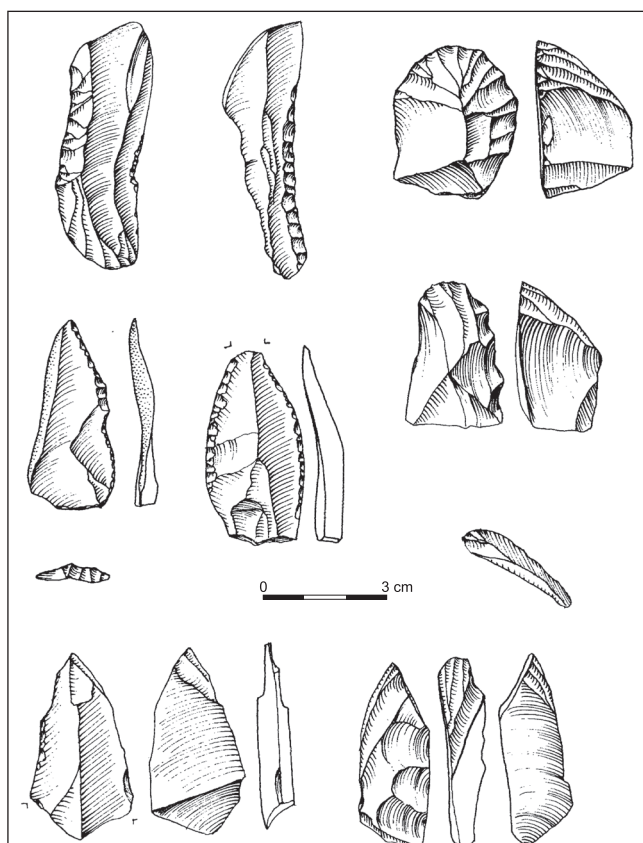


Figure 29.11. (on left) Yafteh (2005). Aurignacian blades, carinated burins and endscrapers are common elements in the Zagros Aurignacian tool kit, as elsewhere. Yet tools of 'Mousterian' type, made on centripetal removals, are found in direct association. There is thus a form of technological continuity that further research will clarify. (After Otte et al. 2006).

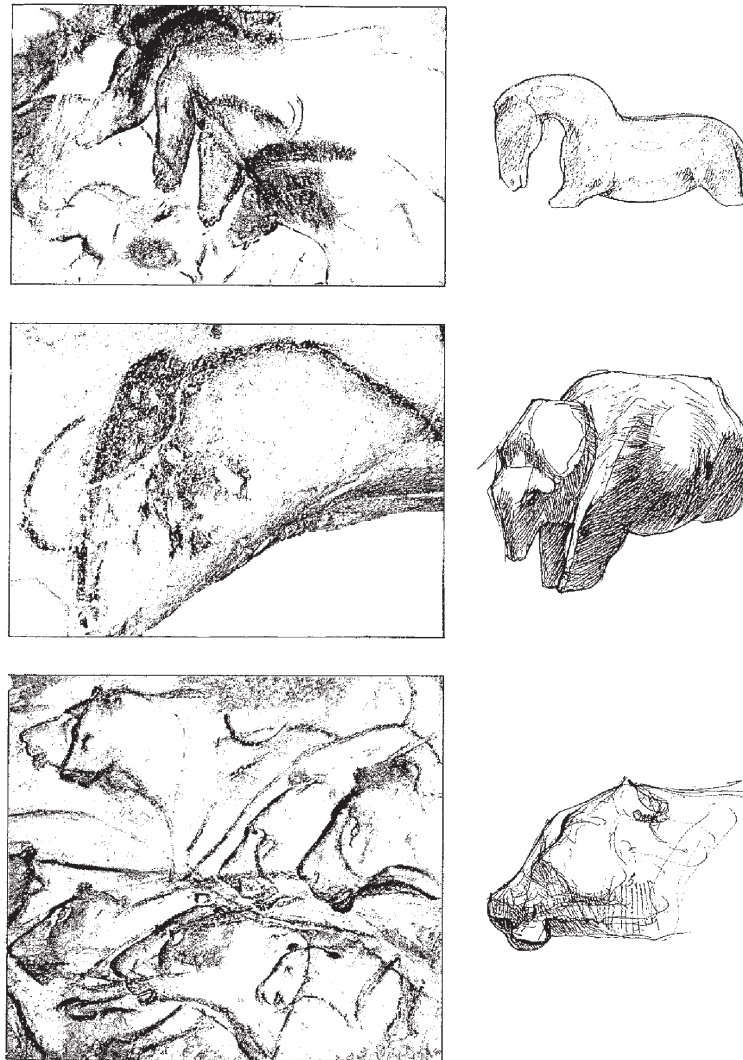


Figure 29.12. The Aurignacian. This modern population suggests an advanced phase, exclusively in Europe, because it was the result of a rapid migration. Everywhere else, morphological continuity exists, from the earliest Homo species to current populations! The illusion of modernity is based on the exportation of Western evolutionary models during the colonial period of the nineteenth century. These concepts, developed from evolutionary theory and positivism, were exported untransformed and imposed on non-European discoveries, regardless of their real applicability. Still in use today, this view guards a 'retrospective racism' as dangerous as modern racism, where past human species are viewed differently: this is a neo-Biblical view that takes us back to pre-Darwinian times. In archaeology, everything, in contrast, demonstrates that Neanderthal capabilities were equivalent to those of modern humans; differences are limited to their actualization (or not), which is based only on context. The origin of art cannot be found in the geographic origin of modern humans, nor in older local European populations, but at the confrontation between the two different ideologies. It is only when there is a meeting between entirely different views of the relationship between humans and land that materialization of ideas in the form of concrete images occurs. Such images support mythical thought by conferring upon it durability and a physical presence. It is thus in the extreme west (Europe) that art emerged with the most vigour, appearing in the form of mobile statuettes (Swabian Jura) and parietal art (Chauvet) to mark the conquered landscape in the deepest spiritual manner. We see a transition from the abstract to the concrete, from oral recitations to images, a transition in which a highly coherent mythical thought is crystallized. The major themes are identical (and moreover distinct from earlier themes). It is quite revealing to observe that in the western extremity of Eurasia, artistic practice was locally maintained, throughout all succeeding cultures and, it seems, in an autonomous manner: the history of art was born, in fact, by this initial contact between different human populations.

rignacian (monograph in progress, in collaboration with J.K. Kozłowski). These recent observations are fundamental for the interpretation of the Mousterian and the Aurignacian of Anatolia and beyond, in order to understand and explain the apparently abrupt appearance of 'modernity' in Europe. These conclusions were previously reached by Olszewski & Dibble (1994), but remain curiously without echo. Today, new excavations, new AMS dates and the application of modern excavation techniques, with particular attention to the microstratigraphy, leave no doubt as to the presence, antiquity and local origin of the Aurignacian in the Zagros.

Conclusion

Central Asia (but not the Near East!) contains all of the components for the hypothesized dense and rapid migratory movement of anatomically modern humans toward Europe. At the same time, this origin could have, occasionally and at a later point, extended to the Levant and to North India. This northwest-southeast axis would later correspond to the linguistic zone of the Indo-Europeans. Yet the single real break in the evolution of human populations consists of the arrival of modern humans to Europe; all others concern internal movements within this region (including the Neolithic, coming from pre-Ottoman Anatolia and thus Indo-European). The Aurignacian movement seems to have corresponded with a particularly strong demographic development, probably associated with a more efficient (or 'less respectful') economy that was the origin of the expansion to the west, to territories less intensively exploited before. The notion of Palaeolithic art seems to be the result of cultural contacts at the extreme west of the continent (Fumane, Vogelherd, Chauvet), as if to render visible a mythology that until then had been abstract and oral. This need for material expression (in the form of statuettes) and territorial demarcation (parietal art) is, in our view, the response to the encounter between two different worlds of thought: Neanderthals and modern humans. It is thus perhaps vain to search for traces of their origins elsewhere. This movement, centred on the middle latitudes, from Europe and Asia, can be identified and isolated via the Aurignacian culture, but it does not exclude other comparable phenomena, occurring sooner or later, in Africa or northern and eastern Asia.

As the inventions of writing, the wheel and agriculture prove, the human spirit has always functioned in a terribly complex but perfectly coherent manner.

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